

Amendments to the Claims:

This listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A disposable diaper comprising:

a liquid-pervious topsheet;

a liquid-impervious backsheet;

a liquid-absorbent core having a length, width and thickness and being covered with an absorbent and diffusive sheet and disposed between said topsheet and said backsheet;

said liquid-absorbent core being formed on a side facing said topsheet with at least one groove depressed in a direction from a side of said topsheet toward a side of said backsheet, said at least one groove having a bottom and side walls both covered with said topsheet;

said liquid-absorbent core containing water-absorbent fibers and superabsorbent particles;

and

substantially all of said ~~water-absorbent fibers and~~ superabsorbent polymer particles contained within the liquid-absorbent core being ~~disposed substantially uniformly in a single zone~~ within a localized in a single zone at a lower portion of the core liquid-absorbent core; and

said single zone being ~~between said topsheet and said backsheet which single zone is~~ substantially coextensive with the width of the liquid-absorbent core and along said bottom of said at least one groove with a higher concentration of the superabsorbent polymer particles within a vicinity of the at least one groove.

Claim 2 (currently amended): The disposable diaper according to Claim 1, wherein said superabsorbent polymer particles are joined integrally with the absorbent and diffusive sheet covering said liquid-absorbent core along said bottom and side walls of said at least one groove.

Claim 3 (previously presented): The disposable diaper according to Claim 1, wherein said absorbent and diffusive sheet is joined to said topsheet along said bottom and side walls of said at least one groove by means of an adhesive.

Claim 4 (currently amended): The disposable diaper according to Claim 1, wherein said water-absorbent fibers form a thin layer ~~having a density so that a density of water-absorbent fiber in said~~ thin layer is higher than a density of ~~said~~ water-absorbent fibers around a depth of said liquid-absorbent core, said thin layer being in close contact with said absorbent and diffusive sheet.

Claim 5 (previously presented): The disposable diaper according to Claim 1, wherein said water-absorbent fibers comprises fluff pulp fibers.

Claim 6 (currently amended): The disposable diaper according to Claim 1, wherein a distribution density of said superabsorbent polymer particles gradually increases in a thickness direction of said liquid-absorbent core from said topsheet toward said backsheet.

Claim 7 (previously presented): The disposable diaper according to Claim 1, wherein said disposable diaper has a front waist region, a rear waist region and a crotch region extending between these two waist regions and wherein said at least one groove extends in a longitudinal direction of said diaper.

Claim 8 (previously presented): The disposable diaper according to Claim 7, wherein said at least one groove comprises at least two grooves and said crotch region is formed along transversely opposite side edge portion thereof with said at least two grooves, respectively, extending in said longitudinal direction in parallel to each other.

Claim 9 (currently amended): The disposable diaper according to Claim 8, wherein a distribution density of said superabsorbent polymer particles in said liquid-absorbent core is higher between said at least two grooves extending in parallel to each other than outside said at least two grooves.

Appl. No. 09/997,132
Amdt. Dated July 1, 2004
Reply to Office Action of April 5, 2004

Claim 10 (currently amended): The disposable diaper according to Claim 1, wherein the liquid-absorbent core contains at least 20% by weight of thermoplastic synthetic fibers.

Claim 11 (previously presented): The disposable diaper according to Claim 10, wherein the thermoplastic synthetic fibers have a melting point of $100\text{ }^{\circ}\text{C} \pm 20^{\circ}\text{C}$.